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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,926	09/04/2003	Naoki Hashimoto	Q77274	3647

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EXAMINER
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ZEWDU, MELESS NMN

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/653,926

Applicant(s)

HASHIMOTO ET AL.

Examiner

Meless N. Zewdu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19-25 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9.4.03, 4/29/04, 11/17/05.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

1. This action is the first on the merit of the instant application.
2. Claims 1-25 are pending in this action.

### ***Claim Objections***

Claim 19 is objected to because of the following informalities: the word "in" or "for" needs to be inserted between the words "packets" and "every", on line 4..

Appropriate correction is required

Claim 20 is objected to because of the following informalities: the word "and" need to be inserted between the words "ports" and "coincide", on line 3. Appropriate correction is required.

Claim 14 is objected to because of the following informalities: "for" need to be inserted between the words "packets" and "every", on line 3. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 7, 9, 10, 11, 16, 24, 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the claims recited above, the

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phrase recited as "packets other than the prioritized packets" is vague since it does not specifically point out what is claimed. In other words, what is included and what is not is unclear, hence vague.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9-11, 14, 16, 21, 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Milliken et al. (Milliken) (US .6,490,629 B1).

**As per claim 24:** Milliken discloses a packet transmission method comprising (see title) the steps of:

sorting received packets (col. 6, lines 41-42); col. 1, line 66-col. 2, line 12) into prioritized packets (see col. 6, lines 38-40; col. 1, lines 42-49) and packets other than the prioritized packets (see claims 1-2); and transmitting the sorted packets (see claims 12-13).

**As per claim 25:** the features of claim 25 are similar to the features of claim 24, except accumulating the sorted prioritized packets, which is disclosed by Milliken (see claim 8). Storing/queuing is commensurate with accumulating.

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**As per claim 9:** the features of claim 10 are similar to the features of claims 24 and 25, except claim 10 includes a feature directed to --- capsulating means for capsulating the packets, which is disclosed by Milliken (see col. 3, lines 1-7). Hence, claim 9 is rejected on the same ground as claims 24 and 25.

**As per claim 10:** the features of claim 10 are similar to the features of claims 24 and 25, except claim 10 includes two difference features: (1) a wireless LAN, which is an intended use and haven't been given a patentable weight; (2) capsulating means for capsulating the packets, which is disclosed by Milliken (see col. 3, lines 1-7). Hence, claim 10 is rejected on the same ground as claims 24 and 25.

**As per claim 11:** the features of claim 11 are similar to the features of claim 24. Hence, claim 11 is rejected on the same ground as claim 24.

**As per claim 14:** Milliken discloses sorting means that sets queues to general packets (see col. 2, lines 7-12). In Milliken, the packets are queued based on a quality of service (QoS/priority) requirement. The QoS can include high priority or low priority packets. Furthermore, as pointed out in the 35 USC 112, second paragraph rejection, the phrase, "other than prioritized packets every MAC address" is vague and indefinite. However, the Milliken reference shows that both high and low priority packets can be queued based on QoS requirement.

**As per claim 21:** the feature of claim 21 is similar to the feature of claim 14. Hence, claim 21 is rejected on the same ground as claim 14.

**As per claim 16:** the features of claim 16 are similar to the features of claims 9. Hence, claim 16 is rejected on the same ground as claim 9.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken, as applied to claims 11 and 16 above, and further in view of Steiner et al. (Steiner) (US 6,529,519 B1).

**As per claim 12:** but, Milliken does not explicitly teach about sorting the prioritized packets into moving pictures and voice packets. However, in the same field of endeavor, data packets corresponding to respective types of services (wherein types of services is interpreted as services that can include voice and moving picture) having respective quality of service requirements (wherein quality of service is interpreted as commensurate with priority) priorities) and the memory system is prioritized buffer for containing data packets sorted in accordance with the respective quality of service requirements of the type of traffic to which the packets correspond (see col. 4, lines 1-11). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Milliken with that of Steiner for the advantage of managing a prioritized buffer for stream data organized in fixed size packets or cells, as may be employed in wireless multimedia applications (see col. 1, lines 10-13).

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**As per claim 19:** the feature of claim 19 is similar to the feature of claim 12, except capsulating the prioritized packets. However, this feature (capsulating), has been disclosed by Milliken, as discussed in the rejection of claim 16. Therefore, claim 19 is rejected on the same ground and motivation as claim 12.

Claims 13, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken, as applied to claims 11 and 16 above, and further in view of Kobayash (US 6,977,896 B1).

**As per claim 13:** as discussed above, Milliken discloses sorting means that sorts the received packets into prioritized packets. But Milliken does not explicitly teach about – only when the received packets are UDP and IP ports coincide with IP ports registered in advance respectively. However, in the same field of endeavor, Kobayashi teaches about IP communication network, wherein the QoS guarantee target packets are sorted, out by use of UDP port and the IP address, and thereafter the packets may be encapsulated and then transferred (see col. 8, lines 33-53; col. 7, lines 42-61).

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Milliken with that of Kobayashi for the advantage of providing an IP communications network system and a QoS guaranteeing apparatus which is capable of guaranteeing the QoS as to a delay (see col. 2, lines 50-57).

**As per claim 20:** the feature of claim 20 is similar to the feature of claim 13. Hence, claim 20 is rejected on the same ground and motivation as claim 13.

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Claims 15, 17, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken as applied to claims 11 and 16 above, and further in view of Arimilli (US 5,757,801)..

**As per claim 15:** the feature of claim 15 is similar to the feature of claim 9, except general packets being respectively interrupted, as claimed by applicant. However, in the same field of endeavor, Arimilli teaches about advanced priority statistical multiplexer wherein low priority data transmission is interrupted when higher data is ready for transmission (see col. 28, lines 22-29). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Milliken with that of Arimilli for the advantage of packets are interrupted assuring predictable and minimal delay of higher priority packets (see col. 28, lines 22-29).

**As per claim 17:** but, Milliken does not explicitly teach about matching the capsulating packet with CODEC period, as claimed by applicant. However, Arimilli teaches that asynchronous (low priority) data can be transmitted in lieu of voice data by detecting quiet interval in the speech signal (see col. 12, lines 32-40; col. 23, lines 1-58). The CODEC is obvious from the code book used in Arimilli's reference. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teaching of Milliken with that of Arimilli for the advantage of detecting quiet intervals in a speech signal so as to allow data transmission in lieu of the interrupted speech signal (see col. 12, lines 32-40).



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**As per claim 22:** Arimilli teaches a packet transmission system, wherein a period of said transmitting means is counted by an interval timer (see col. 12, lines 32-40; col. 17, lines 1-12; col. 33, lines 40-57).

**As per claim 23:** the feature of claim 23 is similar to the feature of claim 15. Hence, claim 23 is rejected on the same ground and motivation as claim 15.

### ***Allowable Subject Matter***

Claims 1-8 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claim 18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Meless N. Zewdu whose telephone number is (571) 272-7873. The examiner can normally be reached on 8:30 am to 5:00 pm..

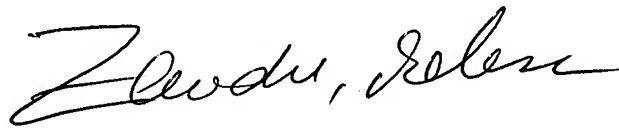
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Appiah Charles can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

Meless zewdu

A handwritten signature in cursive script, appearing to read 'Zewdu, Meless', written in black ink.

Examiner

01 April 2007.